CLAIMS

What is claimed is:

1.   A defrosting method of a refrigerator comprising the steps of:

determining whether or not a predetermined first defrosting completion condition
is usable;

if the predetermined first defrosting completion condition is usable, executing a
first defrosting mode, which uses the predetermined first defrosting completion
condition; and

if the predetermined first defrosting completion condition is not usable, executing
a second defrosting mode, which uses a predetermined second defrosting completion
condition different from the predetermined first defrosting completion condition, and a
defrosting execution determination condition different from that of the first defrosting
mode.

2.   The defrosting method according to claim 1, wherein the determination of
whether or not the predetermined first defrosting completion condition is usable is made,
based on whether a heat exchanger temperature sensor adapted to measure a
temperature of a heat exchanger, to be defrosted, is in a normal state or in a failure
state.

3.   The defrosting method according to claim 2, wherein:

the first defrosting mode is executed when it is determined that the heat
exchanger temperature sensor is in the normal state; and

the second defrosting mode is executed when it is determined that the heat
exchanger temperature sensor is in the failure state.

4. The defrosting method according to claim 3, wherein the step of executing the second defrosting mode comprises the steps of:

comparing a temperature of a storage compartment, to be cooled in accordance with an operation of the heat exchanger, with a reference temperature; and

if the temperature of the storage compartment is lower than the reference temperature, turning on a defrost heater adapted to defrost the heat exchanger for a predetermined time.

5. The defrosting method according to claim 4, wherein the step of executing the second defrosting mode further comprises the step of:

if the temperature of the storage compartment is not lower than the reference temperature, preventing the defrost heater from being driven.

6. The defrosting method according to claim 4, wherein the second defrosting completion condition is satisfied when a predetermined time has elapsed after the turning-on of the defrost heater.

7. The defrosting method according to claim 3, wherein:

the first defrosting completion condition is satisfied when the temperature measured by the heat exchanger temperature sensor reaches a reference temperature; and

the first defrosting mode is adapted to execute a defrosting operation in accordance with the first defrosting completion condition.

8. A defrosting method of a refrigerator comprising the steps of:

determining whether or not a heat exchanger temperature sensor adapted to measure a temperature of a heat exchanger, to be defrosted, is in a failure state;

if the heat exchanger temperature sensor is in a failure state, comparing a temperature of a storage compartment, to be cooled in accordance with an operation of

the heat exchanger, with a reference temperature; and

if the temperature of the storage compartment is lower than the reference temperature, turning on a defrost heater adapted to defrost the heat exchanger for a predetermined time.

5   9.   The defrosting method according to claim 8, further comprising the step of:

if the temperature of the storage compartment is not lower than the reference temperature, preventing the defrost heater from being driven.

10.   The defrosting method according to claim 8, wherein the failure state of the heat exchanger temperature sensor corresponds to an open-circuited or short-
10   circuited state.

11.   A refrigerator comprising:

a heat exchanger adapted to exchange heat with air in a storage compartment;

a heat exchanger temperature sensor adapted to measure a temperature of the heat exchanger;

15   a defrost heater adapted to perform a defrosting operation for the heat exchanger; and

a control unit adapted to execute a first defrosting mode when the heat exchanger temperature sensor is in a normal state, while executing a second defrosting mode, which uses a defrosting completion condition and a defrosting execution
20   determination condition different from those of the first defrosting mode, when the heat exchanger temperature sensor is in a failure state.

12.   The refrigerator according to claim 11, wherein:

the first defrosting mode is executed to drive the defrost heater until the temperature measured by the heat exchanger temperature sensor reaches a first
25   reference temperature; and

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the second defrosting mode is executed to drive the defrost heater for a predetermined time when a temperature of the storage compartment is not higher than a second reference temperature.